

Notice of Allowability

Application No.

09/693,251

Examiner

Brian D. Nguyen

Applicant(s)

VICISANO ET AL.

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 8/16/05.
2. ☒ The allowed claim(s) is/are 1,4,6-12,26,28,30,5,13-14,16-22,24,27,29,31,15,23,32-33,35-43,45-47,49-61,63-75,77 (renumbered 1-69, respectively).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 11292005.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

BRIAN NGUYEN
PRIMARY EXAMINER

11/29/05

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with A Sidney Johnston on 11/29/05.

3. The application has been amended as follows:

Claim 17. The method of claim 13, further comprising:

determining [a] if said loss rate statistic ~~which~~ has not expired for at least one port of said router, where said at least one port includes all ports of a multicast group distribution tree of said multicast group; and

writing said loss rate statistic into said outgoing loss report message before transmitting said outgoing loss report message.

Claim 24. A computer readable media having instructions written thereon for execution on a processor for practicing the method of claim 13.

Claim 25. (cancelled).

Claim 33. A router controlling congestion on links attached to the router, said router comprising:

a plurality of ports;

a first port of said plurality of ports for receiving a data packet;

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a second port of said plurality of ports for transmitting said data packet in a down-stream direction;

a receiver to receive a loss report message on said second port, said loss report traveling in an upstream direction;

a processor configured to determine loss of packets on a port of said plurality of ports and, in response to said loss report message and said loss of packets, to calculate a loss rate statistic; and

a transmitter configured to transmit an outgoing loss report message through said first port in an said upstream direction, said outgoing loss report message containing a field having said loss rate statistic written therein.

Claim 34. (Cancelled).

Claim 44. (Cancelled).

Claim 47. A method for operating a router, comprising:

receiving a data packet traveling in a downstream direction at a first port;

transmitting a replica of said data packet from a second port in said downstream direction;

receiving a loss report message on said second port, said loss report traveling in an upstream direction;

computing a loss of packets on selected ports of said router;

calculating, in response to said loss report message and said loss of packets, a loss rate statistic; and

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transmitting an outgoing loss report message through said first port in ~~an~~ said upstream direction, said outgoing loss report message containing said loss rate statistic in a field of said outgoing loss report message.

Claim 48. (Cancelled).

Claim 61. A router, comprising:

means for receiving a data packet traveling in a downstream direction at a first port;

means for transmitting a replica of said data packet from a second port in said downstream direction;

means for receiving a loss report message on said second port, said loss report traveling in an upstream direction;

means for computing a loss of packets on selected ports of said router;

means for calculating, in response to said loss report message and said loss of packets, a loss rate statistic; and

means for transmitting an outgoing loss report message through said first port in ~~an~~ said upstream direction, said outgoing loss report message containing said loss rate statistic in a field of said outgoing loss report message.

Claim 62. (Cancelled).

Claim 75. ~~A computer readable media, comprising:~~

said A computer readable media having instructions written thereon for execution on a processor for the practice of a method of operating a router, the method having the steps of:

receiving a multicast group data packet at a first port;

transmitting a replica of said multicast group data packet from a second port;

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receiving an incoming loss report message on said second port;
computing a loss of packets on selected ports of said router;
calculating, in response to said incoming loss report message and said loss of packets, a loss rate statistic; and

transmitting an outgoing loss report message through said first port, said outgoing loss report message containing said loss rate statistic in a field of said outgoing loss report message.

Claim 76. (Cancelled).

Claim 77. ~~A computer readable media, comprising:~~

said A computer readable media having instructions written thereon for execution on a processor for the practice of a method of operating a router, the method having the steps of:

receiving a data packet traveling in a downstream direction at a first port;
transmitting a replica of said data packet from a second port in said downstream direction;

receiving a loss report message on said second port, said loss report message traveling in an upstream direction;

computing a loss of packets on selected ports of said router;
calculating, in response to said loss report message and said loss of packets, a loss rate statistic; and

transmitting an outgoing loss report message through said first port in an said upstream direction, said outgoing loss report message containing said loss rate statistic in a field of said outgoing loss report message.

Claim 78. (Cancelled).

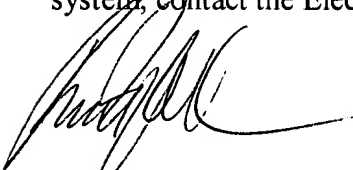
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Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian D. Nguyen whose telephone number is (571) 272-3084. The examiner can normally be reached on 7:30-6:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



11/29/05

**BRIAN NGUYEN
PRIMARY EXAMINER**